

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 09/783,931C  
Source: 1Fw/b  
Date Processed by STIC: 1/13/06

***ENTERED***

## **CRF Errors Edited by the STIC Systems Branch**

Serial Number: 09/783,93/C

CRF Edit Date: 1/17/06  
Edited by: AS

\_\_\_\_\_ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

\_\_\_\_\_ Corrected the SEQ ID NO. Sequence numbers edited were:

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\_\_\_\_\_ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

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J Deleted: J invalid beginning/end-of-file text ; \_\_\_\_\_ page numbers

\_\_\_\_\_ Inserted mandatory headings/numeric identifiers, specifically:

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\_\_\_\_\_ Moved responses to same line as heading/numeric identifier, specifically:

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J Other: globally corrected spelling of "consensus" and "human"

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IFW16

**RAW SEQUENCE LISTING** DATE: 01/17/2006  
**PATENT APPLICATION:** US/09/783,931C TIME: 12:34:48

Input Set : N:\AMC\783931.TXT  
Output Set: N:\CRF4\01172006\I783931C.raw

4 <110> APPLICANT: Ish-Horowicz, David  
5 Henrique , Domingos Manuel Pinto  
6 Lewis, Julian Hart  
7 Artavanis Tsakonas, Spyridon  
8 Gray, Grace  
10 <120> TITLE OF INVENTION: ANTIBODIES TO VERTEBRATE DELTA PROTEINS  
11 AND FRAGMENTS  
13 <130> FILE REFERENCE: 7326-122-999  
15 <140> CURRENT APPLICATION NUMBER: 09/783,931C  
16 <141> CURRENT FILING DATE: 2001-02-15  
18 <150> PRIOR APPLICATION NUMBER: 08/981,392  
19 <151> PRIOR FILING DATE: 1997-12-22  
21 <150> PRIOR APPLICATION NUMBER: PCT/US96/11178  
22 <151> PRIOR FILING DATE: 1996-06-28  
24 <150> PRIOR APPLICATION NUMBER: 60/000,589  
25 <151> PRIOR FILING DATE: 1995-06-28  
27 <160> NUMBER OF SEQ ID NOS: 95  
29 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
31 <210> SEQ ID NO: 1  
32 <211> LENGTH: 2508  
33 <212> TYPE: DNA  
34 <213> ORGANISM: Gallus gallus  
36 <220> FEATURE:  
37 <221> NAME/KEY: CDS  
38 <222> LOCATION: (277) . . . (2460)  
39 <223> OTHER INFORMATION: Chick Delta (C-Delta-1) gene  
41 <400> SEQUENCE: 1  
42 gaattcggca cgaggttttt tttttttttt ttcccccctttt ttcttttttt tccttttgcc 60  
43 atccgaaaga gctgtcagcc gccgcgggc tgcacctaaa ggcgtcggtta gggggataaac 120  
44 agtcagagac cctcctgaaa gcaggagacg ggacggtacc cctccggctc tgccccggcgg 180  
45 ctgcggccccc tccgttcttt cccccctcccc gagagacact cttcctttcc ccccacgaag 240  
46 acacaggggc aggaacgcga ggcgtgcccc tccgcc atg gga ggc cgc ttc ctg 294  
47 Met Gly Gly Arg Phe Leu  
48 1 5  
50 ctg acg ctc gcc ctc ctc tcg gcg ctg ctg tgc cgc tgc cag gtt gac 342  
51 Leu Thr Leu Ala Leu Leu Ser Ala Leu Leu Cys Arg Cys Gln Val Asp  
52 10 15 20  
54 ggc tcc ggg gtg ttc gag ctg aag ctg cag gag ttt gtc aac aag aag 390  
55 Gly Ser Gly Val Phe Glu Leu Lys Leu Gln Glu Phe Val Asn Lys Lys  
56 25 30 35  
58 ggg ctg ctc agc aac cgc aac tgc tgc cgg ggg ggc ggc ccc gga ggc 438  
59 Gly Leu Leu Ser Asn Arg Asn Cys Cys Arg Gly Gly Pro Gly Gly  
60 40 45 50

R. b

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62	gcc	ggg	cag	cag	cag	tgc	gac	tgc	aag	acc	ttc	ttc	cgc	gtc	tgc	ctg	486
63	Ala	Gly	Gln	Gln	Gln	Cys	Asp	Cys	Lys	Thr	Phe	Phe	Arg	Val	Cys	Leu	
64	55					60			65						70		
66	aag	cac	tac	cag	gcc	agc	gtc	tcc	ccc	gag	ccg	ccc	tgc	acc	tac	ggc	534
67	Lys	His	Tyr	Gln	Ala	Ser	Val	Ser	Pro	Glu	Pro	Pro	Cys	Thr	Tyr	Gly	
68						75			80						85		
70	agc	gcc	atc	acc	ccc	gtc	ctc	ggc	gcc	aac	tcc	ttc	agc	gtc	ccc	gac	582
71	Ser	Ala	Ile	Thr	Pro	Val	Leu	Gly	Ala	Asn	Ser	Phe	Ser	Val	Pro	Asp	
72						90			95						100		
74	ggc	gca	ggc	ggc	ggc	gac	ccc	gcc	ttc	agc	aac	ccc	atc	cgc	ttc	ccc	630
75	Gly	Ala	Gly	Gly	Ala	Asp	Pro	Ala	Phe	Ser	Asn	Pro	Ile	Arg	Phe	Pro	
76						105			110						115		
78	ttc	ggc	ttc	acc	tgg	ccc	ggc	acc	ttc	tcg	ctc	atc	atc	gag	gct	ctg	678
79	Phe	Gly	Phe	Thr	Trp	Pro	Gly	Thr	Phe	Ser	Leu	Ile	Ile	Glu	Ala	Leu	
80						120			125						130		
82	cac	acc	gac	tcc	ccc	gac	gac	ctc	acc	aca	gaa	aac	ccc	gag	cgc	ctc	726
83	His	Thr	Asp	Ser	Pro	Asp	Asp	Leu	Thr	Thr	Glu	Asn	Pro	Glu	Arg	Leu	
84						135			140						150		
86	atc	agc	cgc	ctg	gcc	acc	cag	agg	cac	ctg	gcg	gtg	ggc	gag	gag	tgg	774
87	Ile	Ser	Arg	Leu	Ala	Thr	Gln	Arg	His	Leu	Ala	Val	Gly	Glu	Glu	Trp	
88						155			160						165		
90	tcc	cag	gac	ctg	cac	agc	agc	ggc	cgc	acc	gac	ctc	aag	tac	tcc	tat	822
91	Ser	Gln	Asp	Leu	His	Ser	Ser	Gly	Arg	Thr	Asp	Leu	Lys	Tyr	Ser	Tyr	
92						170			175						180		
94	cgc	ttt	gtg	tgt	gat	gag	cac	tac	tac	ggg	gaa	ggc	tgc	tct	gtc	ttc	870
95	Arg	Phe	Val	Cys	Asp	Glu	His	Tyr	Tyr	Gly	Glu	Gly	Cys	Ser	Val	Phe	
96						185			190						195		
98	tgc	cg	ccc	cgt	gac	gac	cg	ttc	ggt	cac	ttc	acc	tgt	gga	gag	cgt	918
99	Cys	Arg	Pro	Arg	Asp	Asp	Arg	Phe	Gly	His	Phe	Thr	Cys	Gly	Glu	Arg	
100						200			205						210		
102	ggc	gag	aag	gtc	tg	cc	ggc	tgg	aag	ggc	cag	tac	tgc	act	gag	966	
103	Gly	Glu	Lys	Val	Cys	Asn	Pro	Gly	Trp	Lys	Gly	Gln	Tyr	Cys	Thr	Glu	
104						215			220						230		
106	ccg	att	tgc	ttg	cct	ggg	tgt	gac	gag	cag	cac	ggc	ttc	tgc	gac	aaa	1014
107	Pro	Ile	Cys	Leu	Pro	Gly	Cys	Asp	Glu	Gln	His	Gly	Phe	Cys	Asp	Lys	
108						235			240						245		
110	cct	ggg	gaa	tgc	aag	tgc	aga	gtg	ggt	tgg	cag	ggg	cgg	tac	tgt	gac	1062
111	Pro	Gly	Glu	Cys	Lys	Cys	Arg	Val	Gly	Trp	Gln	Gly	Arg	Tyr	Cys	Asp	
112						250			255						260		
114	gag	tgc	atc	cga	tac	cca	ggc	tgc	ctg	cac	ggt	acc	tgt	cag	cag	cca	1110
115	Glu	Cys	Ile	Arg	Tyr	Pro	Gly	Cys	Leu	His	Gly	Thr	Cys	Gln	Gln	Pro	
116						265			270						275		
118	tgg	cag	tgc	aac	tgc	cag	gaa	ggc	tgg	ggc	ggc	ctt	ttc	tgc	aac	cag	1158
119	Trp	Gln	Cys	Asn	Cys	Gln	Glu	Gly	Trp	Gly	Gly	Leu	Phe	Cys	Asn	Gln	
120						280			285						290		
122	gac	ctg	aat	tac	tgc	act	cac	cac	aag	cca	tgc	aag	aat	ggt	gcc	aca	1206
123	Asp	Leu	Asn	Tyr	Cys	Thr	His	His	Lys	Pro	Cys	Lys	Asn	Gly	Ala	Thr	
124						295			300						310		
126	tgc	acc	aac	acc	ggt	cag	ggg	agc	tac	act	tgt	tct	tgc	cga	cct	ggg	1254

**RAW SEQUENCE LISTING**  
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127	Cys	Thr	Asn	Thr	Gly	Gln	Gly	Ser	Tyr	Thr	Cys	Ser	Cys	Arg	Pro	Gly	
128					315				320							325	
130	tac	aca	ggc	tcc	agc	tgc	gag	att	gaa	atc	aac	gaa	tgt	gat	gcc	aac	1302
131	Tyr	Thr	Gly	Ser	Ser	Cys	Glu	Ile	Glu	Ile	Asn	Glu	Cys	Asp	Ala	Asn	
132						330				335					340		
134	cct	tgc	aag	aat	ggt	gga	agc	tgc	acg	gat	ctc	gag	aac	agc	tat	tcc	1350
135	Pro	Cys	Lys	Asn	Gly	Gly	Ser	Cys	Thr	Asp	Leu	Glu	Asn	Ser	Tyr	Ser	
136						345				350					355		
138	tgt	acc	tgc	ccc	cca	ggc	ttc	tat	ggt	aaa	aac	tgt	gag	ctg	agt	gca	1398
139	Cys	Thr	Cys	Pro	Pro	Gly	Phe	Tyr	Gly	Lys	Asn	Cys	Glu	Leu	Ser	Ala	
140						360				365					370		
142	atg	act	tgt	gct	gat	gga	ccg	tgc	ttc	aat	gga	ggg	cga	tgc	act	gac	1446
143	Met	Thr	Cys	Ala	Asp	Gly	Pro	Cys	Phe	Asn	Gly	Gly	Arg	Cys	Thr	Asp	
144						375				380					385		
146	aac	cct	gat	ggt	gga	tac	agc	tgc	cgc	tgc	cca	ctg	ggt	tat	tct	ggg	1494
147	Asn	Pro	Asp	Gly	Gly	Tyr	Ser	Cys	Arg	Cys	Pro	Leu	Gly	Tyr	Ser	Gly	
148						395				400					405		
150	ttc	aac	tgt	gaa	aag	aaa	atc	gat	tac	tgc	agt	tcc	agc	cct	tgt	gct	1542
151	Phe	Asn	Cys	Glu	Lys	Lys	Ile	Asp	Tyr	Cys	Ser	Ser	Ser	Pro	Cys	Ala	
152						410				415					420		
154	aat	gga	gcc	cag	tgc	gtt	gac	ctg	ggg	aac	tcc	tac	ata	tgc	cag	tgc	1590
155	Asn	Gly	Ala	Gln	Cys	Val	Asp	Leu	Gly	Asn	Ser	Tyr	Ile	Cys	Gln	Cys	
156						425				430					435		
158	cag	gct	ggc	ttc	act	ggc	agg	cac	tgt	gac	gac	aac	gtg	gac	gat	tgc	1638
159	Gln	Ala	Gly	Phe	Thr	Gly	Arg	His	Cys	Asp	Asp	Asn	Val	Asp	Asp	Cys	
160						440				445					450		
162	gcc	tcc	ttc	ccc	tgc	gtc	aat	gga	ggg	acc	tgt	cag	gat	ggg	gtc	aac	1686
163	Ala	Ser	Phe	Pro	Cys	Val	Asn	Gly	Gly	Thr	Cys	Gln	Asp	Gly	Val	Asn	
164						455				460					465		
166	gac	tac	tcc	tgc	acc	tgc	ccc	ccg	gga	tac	aac	ggg	aag	aac	tgc	agc	1734
167	Asp	Tyr	Ser	Cys	Thr	Cys	Pro	Pro	Gly	Tyr	Asn	Gly	Lys	Asn	Cys	Ser	
168						475				480					485		
170	acg	ccg	gtg	agc	aga	tgc	gag	cac	aac	ccc	tgc	cac	aat	ggg	gcc	acc	1782
171	Thr	Pro	Val	Ser	Arg	Cys	Glu	His	Asn	Pro	Cys	His	Asn	Gly	Ala	Thr	
172						490				495					500		
174	tgc	cac	gag	aga	agc	aac	cgc	tac	gtg	tgc	gag	tgc	gct	cgg	ggc	tac	1830
175	Cys	His	Glu	Arg	Ser	Asn	Arg	Tyr	Val	Cys	Glu	Cys	Ala	Arg	Gly	Tyr	
176						505				510					515		
178	ggc	ggc	ctc	aac	tgc	cag	ttc	ctg	ctc	ccc	gag	cca	cct	cag	ggg	ccg	1878
179	Gly	Gly	Leu	Asn	Cys	Gln	Phe	Leu	Leu	Pro	Glu	Pro	Pro	Gln	Gly	Pro	
180						520				525					530		
182	gtc	atc	gtt	gac	ttc	acc	gag	aag	tac	aca	gag	ggc	cag	aac	agc	cag	1926
183	Val	Ile	Val	Asp	Phe	Thr	Glu	Lys	Tyr	Thr	Glu	Gly	Gln	Asn	Ser	Gln	
184						535				540					545		
186	ttt	ccc	tgg	atc	gca	gtg	tgc	gcc	ggg	att	att	ctg	gtc	ctc	atg	ctg	1974
187	Phe	Pro	Trp	Ile	Ala	Val	Cys	Ala	Gly	Ile	Ile	Leu	Val	Leu	Met	Leu	
188						555				560					565		
190	ctg	ctg	ggt	tgc	gcc	gcc	atc	gtc	gtc	tgc	gtc	agg	ctg	aag	gtg	cag	2022
191	Leu	Leu	Gly	Cys	Ala	Ala	Ile	Val	Val	Cys	Val	Arg	Leu	Lys	Val	Gln	

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION: US/09/783,931C**

**DATE: 01/17/2006**  
**TIME: 12:34:48**

**Input Set : N:\AMC\783931.TXT**  
**Output Set: N:\CRF4\01172006\I783931C.raw**

192	570	575	580	
194	aag agg cac cac cag ccc gag gcc tgc agg agt gaa acg gag acc atg			2070
195	Lys Arg His His Gln Pro Glu Ala Cys Arg Ser Glu Thr Glu Thr Met			
196	585	590	595	
198	aac aac ctg gcg aac tgc cag cgc gag aag gac atc tcc atc agc gtc			2118
199	Asn Asn Leu Ala Asn Cys Gln Arg Glu Lys Asp Ile Ser Ile Ser Val			
200	600	605	610	
202	atc ggt gcc act cag att aaa aac aca aat aag aaa gta gac ttt cac			2166
203	Ile Gly Ala Thr Gln Ile Lys Asn Thr Asn Lys Lys Val Asp Phe His			
204	615	620	625	630
206	agc gat aac tcc gat aaa aac ggc tac aaa gtt aga tac cca tca gtg			2214
207	Ser Asp Asn Ser Asp Lys Asn Gly Tyr Lys Val Arg Tyr Pro Ser Val			
208	635	640	645	
210	gat tac aat ttg gtg cat gaa ctc aag aat gag gac tct gtg aaa gag			2262
211	Asp Tyr Asn Leu Val His Glu Leu Lys Asn Glu Asp Ser Val Lys Glu			
212	650	655	660	
214	gag cat ggc aaa tgc gaa gcc aag tgt gaa acg tat gat tca gag gca			2310
215	Glu His Gly Lys Cys Glu Ala Lys Cys Glu Thr Tyr Asp Ser Glu Ala			
216	665	670	675	
218	gaa gag aaa agc gca gta cag cta aaa agt agt gac act tct gaa aga			2358
219	Glu Glu Lys Ser Ala Val Gln Leu Lys Ser Ser Asp Thr Ser Glu Arg			
220	680	685	690	
222	aaa cgg cca gat tca gta tat tcc act tca aag gac aca aag tac cag			2406
223	Lys Arg Pro Asp Ser Val Tyr Ser Thr Ser Lys Asp Thr Lys Tyr Gln			
224	695	700	705	710
226	tgc gtg tac gtc ata tca gaa gag aaa gat gag tgc atc ata gca act			2454
227	Ser Val Tyr Val Ile Ser Glu Glu Lys Asp Glu Cys Ile Ile Ala Thr			
228	715	720	725	
230	gag gtg taaaacagac gtgacgtggc aaagcttatac gataccgtca tcaagctt			2508
231	Glu Val			
235	<210> SEQ ID NO: 2			
236	<211> LENGTH: 728			
237	<212> TYPE: PRT			
238	<213> ORGANISM: Gallus gallus			
240	<400> SEQUENCE: 2			
241	Met Gly Gly Arg Phe Leu Leu Thr Leu Ala Leu Leu Ser Ala Leu Leu			
242	1 5 10 15			
243	Cys Arg Cys Gln Val Asp Gly Ser Gly Val Phe Glu Leu Lys Leu Gln			
244	20 25 30			
245	Glu Phe Val Asn Lys Lys Gly Leu Leu Ser Asn Arg Asn Cys Cys Arg			
246	35 40 45			
247	Gly Gly Gly Pro Gly Gly Ala Gly Gln Gln Cys Asp Cys Lys Thr			
248	50 55 60			
249	Phe Phe Arg Val Cys Leu Lys His Tyr Gln Ala Ser Val Ser Pro Glu			
250	65 70 75 80			
251	Pro Pro Cys Thr Tyr Gly Ser Ala Ile Thr Pro Val Leu Gly Ala Asn			
252	85 90 95			
253	Ser Phe Ser Val Pro Asp Gly Ala Gly Ala Asp Pro Ala Phe Ser			
254	100 105 110			

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION: US/09/783,931C**

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**Output Set: N:\CRF4\01172006\I783931C.raw**

255 Asn Pro Ile Arg Phe Pro Phe Gly Phe Thr Trp Pro Gly Thr Phe Ser  
256 115 120 125  
257 Leu Ile Ile Glu Ala Leu His Thr Asp Ser Pro Asp Asp Leu Thr Thr  
258 130 135 140  
259 Glu Asn Pro Glu Arg Leu Ile Ser Arg Leu Ala Thr Gln Arg His Leu  
260 145 150 155 160  
261 Ala Val Gly Glu Glu Trp Ser Gln Asp Leu His Ser Ser Gly Arg Thr  
262 165 170 175  
263 Asp Leu Lys Tyr Ser Tyr Arg Phe Val Cys Asp Glu His Tyr Tyr Gly  
264 180 185 190  
265 Glu Gly Cys Ser Val Phe Cys Arg Pro Arg Asp Asp Arg Phe Gly His  
266 195 200 205  
267 Phe Thr Cys Gly Glu Arg Gly Glu Lys Val Cys Asn Pro Gly Trp Lys  
268 210 215 220  
269 Gly Gln Tyr Cys Thr Glu Pro Ile Cys Leu Pro Gly Cys Asp Glu Gln  
270 225 230 235 240  
271 His Gly Phe Cys Asp Lys Pro Gly Glu Cys Lys Cys Arg Val Gly Trp  
272 245 250 255  
273 Gln Gly Arg Tyr Cys Asp Glu Cys Ile Arg Tyr Pro Gly Cys Leu His  
274 260 265 270  
275 Gly Thr Cys Gln Gln Pro Trp Gln Cys Asn Cys Gln Glu Gly Trp Gly  
276 275 280 285  
277 Gly Leu Phe Cys Asn Gln Asp Leu Asn Tyr Cys Thr His His Lys Pro  
278 290 295 300  
279 Cys Lys Asn Gly Ala Thr Cys Thr Asn Thr Gly Gln Gly Ser Tyr Thr  
280 305 310 315 320  
281 Cys Ser Cys Arg Pro Gly Tyr Thr Gly Ser Ser Cys Glu Ile Glu Ile  
282 325 330 335  
283 Asn Glu Cys Asp Ala Asn Pro Cys Lys Asn Gly Gly Ser Cys Thr Asp  
284 340 345 350  
285 Leu Glu Asn Ser Tyr Ser Cys Thr Cys Pro Pro Gly Phe Tyr Gly Lys  
286 355 360 365  
287 Asn Cys Glu Leu Ser Ala Met Thr Cys Ala Asp Gly Pro Cys Phe Asn  
288 370 375 380  
289 Gly Gly Arg Cys Thr Asp Asn Pro Asp Gly Gly Tyr Ser Cys Arg Cys  
290 385 390 395 400  
291 Pro Leu Gly Tyr Ser Gly Phe Asn Cys Glu Lys Lys Ile Asp Tyr Cys  
292 405 410 415  
293 Ser Ser Ser Pro Cys Ala Asn Gly Ala Gln Cys Val Asp Leu Gly Asn  
294 420 425 430  
295 Ser Tyr Ile Cys Gln Cys Gln Ala Gly Phe Thr Gly Arg His Cys Asp  
296 435 440 445  
297 Asp Asn Val Asp Asp Cys Ala Ser Phe Pro Cys Val Asn Gly Gly Thr  
298 450 455 460  
299 Cys Gln Asp Gly Val Asn Asp Tyr Ser Cys Thr Cys Pro Pro Gly Tyr  
300 465 470 475 480  
301 Asn Gly Lys Asn Cys Ser Thr Pro Val Ser Arg Cys Glu His Asn Pro  
302 485 490 495  
303 Cys His Asn Gly Ala Thr Cys His Glu Arg Ser Asn Arg Tyr Val Cys

RAW SEQUENCE LISTING ERROR SUMMARY  
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:15; Xaa Pos. 4  
Seq#:16; Xaa Pos. 11,15,23,24,28  
Seq#:17; Xaa Pos. 41  
Seq#:18; Xaa Pos. 34,35,39,44,96  
Seq#:19; Xaa Pos. 1,19,23,32,33,36,43  
Seq#:23; Xaa Pos. 25,34,35,38,97  
Seq#:24; N Pos. 854,973,984,1582,1787,1819,1864,1916,1951,2033,2152,2156  
Seq#:24; N Pos. 2171,2183,2194,2212,2220,2226,2230,2244,2245,2264,2265,2266  
Seq#:24; N Pos. 2287  
Seq#:26; N Pos. 559,678,689,1287,1492,1524,1569,1621,1656,1738,1857,1861  
Seq#:26; N Pos. 1876,1888,1899,1917,1925,1931,1935,1942,1943,1952,1953,1954  
Seq#:26; N Pos. 1968  
Seq#:33; Xaa Pos. 25  
Seq#:34; Xaa Pos. 27  
Seq#:35; Xaa Pos. 166,179  
Seq#:36; Xaa Pos. 51  
Seq#:37; Xaa Pos. 28,39  
Seq#:40; Xaa Pos. 4,43,45,50,54  
Seq#:41; Xaa Pos. 5,8  
Seq#:42; Xaa Pos. 1,4,5  
Seq#:43; Xaa Pos. 226,230  
Seq#:45; Xaa Pos. 55  
Seq#:46; Xaa Pos. 47,58,73,101,128,167,168,181,187  
Seq#:47; Xaa Pos. 2,4,5,7,8,11,16  
Seq#:51; Xaa Pos. 126  
Seq#:52; Xaa Pos. 30,33  
Seq#:60; Xaa Pos. 76  
Seq#:61; Xaa Pos. 12  
Seq#:62; Xaa Pos. 4,19,36,48,75  
Seq#:63; Xaa Pos. 16,17,22,26,30  
Seq#:64; Xaa Pos. 2,6,8,10,13,14,19  
Seq#:81; N Pos. 6,12,18,21  
Seq#:82; N Pos. 3,9,12,15  
Seq#:86; N Pos. 3,9,15,18,21  
Seq#:87; N Pos. 3,6,18  
Seq#:89; N Pos. 3,15,18  
Seq#:91; N Pos. 6,9,21  
Seq#:93; N Pos. 6

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/783,931C

DATE: 01/17/2006

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Input Set : N:\AMC\783931.TXT

Output Set: N:\CRF4\01172006\I783931C.raw

L:1139 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0  
L:1157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0  
L:1159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:16  
L:1183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:32  
L:1215 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:32  
L:1221 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:80  
L:1249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0  
L:1251 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:16  
L:1253 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:32  
L:1324 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:16  
L:1326 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:32  
L:1334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:96  
L:1376 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:840  
L:1378 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:960  
L:1388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:1560  
L:1391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:1740  
L:1392 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:1800  
L:1393 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:1860  
L:1394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:1920  
L:1395 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:1980  
L:1397 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:2100  
L:1398 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:2160  
L:1399 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:2220  
L:1400 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:2280  
L:1448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:540  
L:1450 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:660  
L:1460 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:1260  
L:1463 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:1440  
L:1464 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:1500  
L:1465 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:1560  
L:1466 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:1620  
L:1467 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:1680  
L:1469 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:1800  
L:1470 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:1860  
L:1471 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:1920  
L:1587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:16  
L:1610 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:16  
L:1651 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:160  
L:1653 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:176  
L:1680 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:48  
L:1703 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:16  
L:1705 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:32  
L:1752 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0  
L:1756 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:32  
L:1758 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:48  
L:1777 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0  
L:1796 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0  
L:1843 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:224

VERIFICATION SUMMARY  
PATENT APPLICATION: US/09/783,931C DATE: 01/17/2006  
TIME: 12:34:49

Input Set : N:\AMC\783931.TXT  
Output Set: N:\CRF4\01172006\I783931C.raw

L:1898 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:48  
L:1923 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:32  
L:1925 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:48  
L:1927 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:64  
L:1931 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:96  
L:1933 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:112  
L:1939 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:160  
L:1941 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:176  
L:1960 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0  
L:2039 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:112  
L:2062 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:16  
L:2064 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:32  
L:2193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:64  
L:2220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0  
L:2241 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:0  
L:2243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:16  
L:2245 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:32  
L:2249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:64  
L:2272 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0  
L:2274 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:16  
L:2295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:0  
L:2297 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:16  
L:2583 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81 after pos.:0  
L:2599 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82 after pos.:0  
L:2645 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:86 after pos.:0  
L:2661 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:0  
L:2690 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:89 after pos.:0  
L:2719 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:91 after pos.:0  
L:2748 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:0

**STATISTICS SUMMARY**  
PATENT APPLICATION: US/09/783,931C

DATE: 01/17/2006  
TIME: 12:34:49

Input Set : N:\AMC\783931.TXT  
Output Set: N:\CRF4\01172006\I783931C.raw

Application Serial Number: US/09/783,931C

Alpha or Numeric or Xml: Numeric

Application Class:

Application File Date: 02-15-2001

Art Unit: IFW16

Software Application: FastSEQ

Total Number of Sequences: 95

Total Nucleotides: 16503

Total Amino Acids: 7072

Number of Errors: 0

Number of Warnings: 77

Number of Corrections: 0

**MESSAGE SUMMARY**

341 W: 77 ((46) "n" or "Xaa" used)

**Raw Sequence Listing before editing,  
for reference only**



IFW16

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/783,931C

DATE: 01/13/2006

TIME: 15:55:08

Input Set : E:\3rd Substi SEQLIST 7326-122 (as filed).TXT  
 Output Set: N:\CRF4\01132006\I783931C.raw

```

4 <110> APPLICANT: Ish-Horowicz, David
5      Henrique , Domingos Manuel Pinto
6      Lewis, Julian Hart
7      Artavanis Tsakonas, Spyridon
8      Gray, Grace
10 <120> TITLE OF INVENTION: ANTIBODIES TO VERTEBRATE DELTA PROTEINS
11      AND FRAGMENTS
13 <130> FILE REFERENCE: 7326-122-999
15 <140> CURRENT APPLICATION NUMBER: 09/783,931C
16 <141> CURRENT FILING DATE: 2001-02-15
18 <150> PRIOR APPLICATION NUMBER: 08/981,392
19 <151> PRIOR FILING DATE: 1997-12-22
21 <150> PRIOR APPLICATION NUMBER: PCT/US96/11178
22 <151> PRIOR FILING DATE: 1996-06-28
24 <150> PRIOR APPLICATION NUMBER: 60/000,589
25 <151> PRIOR FILING DATE: 1995-06-28
27 <160> NUMBER OF SEQ ID NOS: 95
29 <170> SOFTWARE: FastSEQ for Windows Version 4.0

```

*pn 2-4*  
**Does Not Comply  
 Corrected Diskette Needed**

## ERRORED SEQUENCES

```

2762 <210> SEQ ID NO: 95
2763 <211> LENGTH: 129
2764 <212> TYPE: PRT
2765 <213> ORGANISM: Gallus gallus
2767 <220> FEATURE:
2768 <223> OTHER INFORMATION: chicken C-Delta-1
2770 <400> SEQUENCE: 95
2771 Thr Met Asn Asn Leu Ala Asn Cys Gln Arg Glu Lys Asp Ile Ser Ile
2772   1           5           10          15
2773 Ser Val Ile Gly Ala Thr Gln Ile Lys Asn Thr Asn Lys Lys Val Asp
2774       20          25          30
2775 Phe His Ser Asp Asn Ser Asp Lys Asn Gly Tyr Lys Val Arg Tyr Pro
2776       35          40          45
2777 Ser Val Asp Tyr Asn Leu Val His Glu Leu Lys Asn Glu Asp Ser Val
2778       50          55          60
2779 Lys Glu Glu His Gly Lys Cys Glu Ala Lys Cys Glu Thr Tyr Asp Ser
2780   65           70           75          80
2781 Glu Ala Glu Glu Lys Ser Ala Val Gln Leu Lys Ser Ser Asp Thr Ser
2782           85           90          95
2783 Glu Arg Lys Arg Pro Asp Ser Val Tyr Ser Thr Ser Lys Asp Thr Lys
2784           100          105         110

```

*f.2*

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/783,931C

DATE: 01/13/2006

TIME: 15:55:09

Input Set : E:\3rd Substi SEQLIST 7326-122 (as filed).TXT  
Output Set: N:\CRF4\01132006\I783931C.raw

2785 Tyr Gln Ser Val Tyr Val Ile Ser Glu Glu Lys Asp Glu Cys Ile Ile

2786 115 120

125

2787 Ala

E--> 2791 (46)

see pp 3-4 for more info

09/783,93/C

3

u

<223> Consenses sequence of Chick Delta and Mouse Delta

<400> 13

replace globally

09/783, 93/c 4

human

<223> Predicted amino acid sequence of humna delta

(replace globally)

<220>

<221> VARIANT

<222> 4

<223> Xaa = Any Amino Acid

<400> 15

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/783,931C

DATE: 01/13/2006

TIME: 15:55:10

Input Set : E:\3rd Substi SEQLIST 7326-122 (as filed).TXT  
Output Set: N:\CRF4\01132006\I783931C.raw

L:1139 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0  
L:1157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0  
M:341 Repeated in SeqNo=16  
L:1183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:32  
L:1215 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:32  
M:341 Repeated in SeqNo=18  
L:1249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0  
M:341 Repeated in SeqNo=19  
L:1324 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:16  
M:341 Repeated in SeqNo=23  
L:1376 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:840  
M:341 Repeated in SeqNo=24  
L:1448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:540  
M:341 Repeated in SeqNo=26  
L:1587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:16  
L:1610 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:16  
L:1651 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:160  
M:341 Repeated in SeqNo=35  
L:1680 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:48  
L:1703 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:16  
M:341 Repeated in SeqNo=37  
L:1752 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0  
M:341 Repeated in SeqNo=40  
L:1777 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0  
L:1796 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0  
L:1843 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:224  
L:1898 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:48  
L:1923 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:32  
M:341 Repeated in SeqNo=46  
L:1960 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0  
L:2039 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:112  
L:2062 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:16  
M:341 Repeated in SeqNo=52  
L:2193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:64  
L:2220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0  
L:2241 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:0  
M:341 Repeated in SeqNo=62  
L:2272 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0  
M:341 Repeated in SeqNo=63  
L:2295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:0  
M:341 Repeated in SeqNo=64  
L:2583 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81 after pos.:0  
L:2599 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82 after pos.:0  
L:2645 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:86 after pos.:0  
L:2661 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:0  
L:2690 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:89 after pos.:0  
L:2719 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:91 after pos.:0  
L:2748 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:0

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/783,931C

DATE: 01/13/2006

TIME: 15:55:10

Input Set : E:\3rd Substi SEQLIST 7326-122 (as filed).TXT  
Output Set: N:\CRF4\01132006\I783931C.raw

L:2791 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:95